TOSHIBA
Storage Device Division

DVD WRITEABLE DRIVE

SD-R5272

using
Nero6 OEM Suite 3 Software

Installation Instructions

VERSION 1.0
FEBRUARY 2004

DVD WRITEABLE DRIVE
Installation Instructions

For the following Drive:

SD-R5272

TOSHIBA AMERICA INFORMATION SYSTEMS, INC.
STORAGE DEVICE DIVISION
9740 Irvine Blvd.
Irvine, CA 92618

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P/N 460031-A0

Limited Warranty
Toshiba America Information Systems, Inc.
Storage Device Division
9740 Irvine Boulevard, Irvine, California 92618
1-949-583-3000

What does my limited warranty cover?

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How long is my limited warranty coverage?

Product	**Free parts, labor**
DVD Writeable Drives	1 year
DVD-ROM Drives	1 year
DVD-ROM/CD-RW Combo Drives	1 year
DVD-R/-RW Drives	1 year
DVD-RAM Drives	1 year

Where is this limited warranty valid?

This limited warranty is valid only within the United States and Puerto Rico.

What is not covered by this limited warranty?

- Damage caused by improper installation or improper connection to a peripheral (printer, etc.)
- Damage caused by an external electrical fault or an accident
- Damage caused by accident, misuse, abuse, neglect or improper maintenance
- Damage from use outside usage or storage parameters set forth in the product User's Guide
- Damage from use of parts not manufactured or sold by Toshiba
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For your important data, please make periodic back-up copies of all the data stored on the hard disk or other storage devices as a precaution against possible failures, alteration, or loss of the data. IF YOUR DATA IS ALTERED OR LOST DUE TO ANY TROUBLE, FAILURE OR MALFUNCTION OF THE HARD DISK DRIVE OR OTHER STORAGE DEVICES AND THE DATA CANNOT BE RECOVERED, TOSHIBA SHALL NOT BE LIABLE FOR ANY DAMAGE OR LOSS OF DATA, OR ANY OTHER DAMAGE RESULTING THEREFROM. WHEN COPYING OR TRANSFERRING YOUR DATA, PLEASE BE SURE TO CONFIRM WHETHER THE DATA HAS BEEN SUCCESSFULLY COPIED OR TRANSFERRED. TOSHIBA DISCLAIMS ANY LIABILITY FOR THE FAILURE TO COPY OR TRANSFER THE DATA CORRECTLY.

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LASER CAUTION

This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT". To use this model properly, read this Owner's Manual carefully and keep this manual for future reference. In case of any trouble with this model, please contact your nearest "Authorized Repair Center". *To prevent direct exposure to the laser beam, do not try to open the enclosure*

CAUTION!

- **REFLECTIVE OBJECTS SHOULD NOT BE PLACED IN THE DISK SLOT DUE TO POSSIBLE HAZARDOUS RADIATION EXPOSURE.**
- **USE OF CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN SPECIFIED IN THIS MANUAL MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**

Version	*Date Published*	*Revised Contents*
01	February 2004	Initial release

Congratulations on your purchase of a Toshiba DVD-R/-RW Combo drive and Kit. The following information will help you in the simple installation of your new DVD Writeable drive.

CHECKING YOUR KIT PACKAGING

Please unpack your DVD Writeable drive kit, and assure that you have the following items:

- Toshiba DVD Writeable Drive
- Blank Media (1)
- Nero6 OEM Suite 3 Software CD
- DVD Writeable Drive Installation Instructions (this manual)
- Quick Start Guide
- Mounting screws (4)
- IDE BUS cable
- Audio cable

Additional items you may need that are not included in the kit are:

- Phillips Screwdriver
- Mounting hardware (i.e. some computer systems use mounting rails).

SYSTEM REQUIREMENTS

The DVD Writeable drive kit requires the following:

- ✔ Microsoft™ Windows 98SE, XP, 2000 or ME
- ✔ CPU Requirements:
  300MHz minimum
  800MHz for capturing to hard disc
  1.6GHz for capturing to DVD video
- ✔ 64MB RAM, 128MB RAM (for video editing)
- ✔ Hard Drive Space:
  500MB minimum
  4.8GB for DVD Images
- ✔ Screen solution 800 x 600 pixel minimum, 16 bit color depth or higher
- ✔ Windows Internet Explorer 4.0 or higher
- ✔ PCI sound card, USB audio box or motherboard built-in audio device
- ✔ TV tuner or video capture board for analog recording

MEDIA RECOMMENDATIONS

Toshiba recommends that major brand media be used for recording.
Below is recommended blank media speeds.
CD-R: all speeds
CD-RW: 1X - 4X
High Speed CD-RW: 4X - 10X
DVD-R: 2X minimum
DVD-RW: 1X minimum
DVD + R: 2.4X minimum
DVD + RW: 2.4X minimum

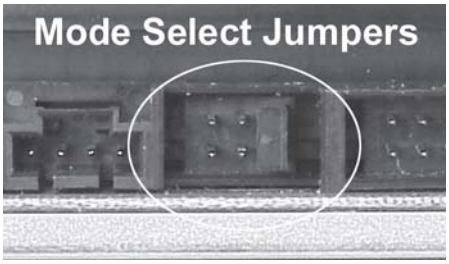
The following steps must be performed to properly install your DVD Writeable drive.

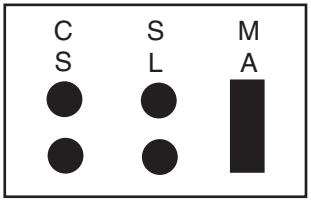
- Set drive's jumpers
- Connect audio cable
- Attach IDE BUS cable
- Connect power cable
- Mount DVD Writeable Drive
- Install Nero6 Ultra Edition Software

SETTING JUMPERS

The mode select jumpers are six (6) straight pins located on the rear of the DVD Writeable Drive. By placing a jumper on the pins, you can select the following functions:

CS: – Drive is configured using host interface signal CSEL
SL: – Configures drive as Slave
MA: – Configures drive as Master (default mode)





Mode Select Jumpers

In most installations, the jumper should remain in the MA (Master) position (factory default). It is recommended that you install your DVD Writeable drive only on the secondary IDE BUS. If you are installing on primary IDE BUS, your hard drive would then be the Master, and you should set your drive to the Slave position (SL).

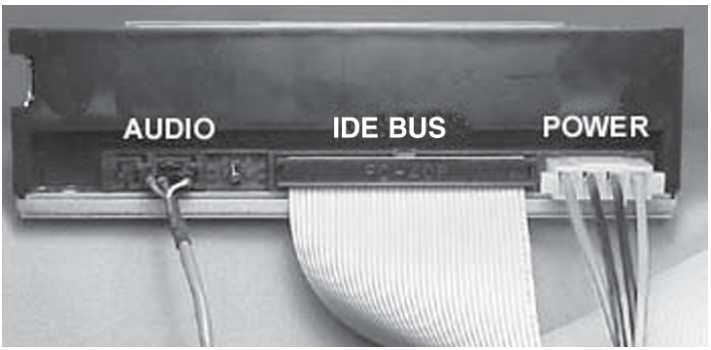
PLACING DVD WRITEABLE DRIVE INSIDE YOUR COMPUTER

Now that you have set your drive's jumpers, you are ready to install your DVD Writeable drive inside your computer.

☞ **IMPORTANT: Disconnect power from your computer system before beginning installation.**

1. Remove computer cover and faceplate if required (refer to your computer system's manual for removal information).
2. If the DVD Writeable drive is replacing a CD-ROM, disconnect all connectors and remove the CD-ROM presently installed in your system.
3. Your Toshiba DVD Writeable drive can be placed in any free half-height drive slot at the front of your computer. (It can be mounted horizontally or vertically.)
4. Carefully start sliding the DVD Writeable drive into the opening with the disc tray facing the front of the computer. Before you push the drive all the way in you will need to connect the IDE BUS cable, audio cable and the power cable to the back of the drive.

CONNECTING CABLES



Cable Locations on Rear of DVD Writeable Drive

IDE BUS Cable **-** Most computer system have a primary and secondary IDE BUS cable already installed (an IDE BUS cable is included with your kit if your system does not have a secondary IDE BUS cable).

If you are replacing a CD-ROM**:** connect the DVD Writeable drive using the BUS cable that the CD-ROM was connected to. Be sure that the jumper setting of the DVD Writeable drive is the same as the CD-ROM drive you are replacing.

If the DVD Writeable Drive is not replacing a CD-ROM and/or is in addition to a CD-ROM: locate the secondary IDE BUS cable in your system. If your system does not have a secondary IDE BUS cable installed, you will need to install the IDE BUS cable that was included with your kit.

Installing secondary IDE BUS cable: locate the secondary IDE BUS connector on your system's motherboard (refer to your system's documentation for location). Connect one end of the IDE BUS cable to motherboard, assuring that it is keyed properly and that cable's colored edge is aligned with Pin 1.

Connect secondary IDE BUS cable to the DVD Writeable drive, assuring that pin 1 of the cable (side with red stripe) is connected to pin 1 on the drive.

- *If the* DVD Writeable drive *is the only drive connected on the secondary IDE BUS cable:* connect drive to the last set of pins on IDE BUS cable.
- *If there is a device (i.e. CD-ROM) connected to the secondary IDE BUS cable:* connect the DVD Writeable drive to the open middle connector. The DVD Writeable drive should then be jumpered to SL (slave) position.

If the DVD Writeable drive is to be the slave on the Primary BUS: connect the DVD Writeable drive to the open connector on the primary IDE BUS cable. *The* DVD Writeable drive should be jumpered to the SL (slave) position. *Note: the primary IDE BUS cable, in most cases, will be connected to your hard drive. The hard drive will be the Master on the primary BUS.*

Power Cable **-** Inside your computer system, locate an unused power supply cable. Connect the power cable to the power socket at the back of the DVD Writeable drive. One side of the plug has chamfered edges, so the power connector fits only one way so be sure to insert the DC power plug in the correct direction. Push plug completely into the socket making sure the plug fits correctly.

Audio Cable **-** Connecting your DVD Writeable drive to your sound card allows you to play audio CDs on your computer (speakers or headphones are also needed).

If the DVD Writeable drive is in addition to a CD-ROM: If you choose to have both a CD-ROM and DVD Writeable drive installed in your system, in most circumstances, only one audio cable can be used (there are some sound cards that will allow you to have two audio connections). You must decide which device you would like to hear audio from and connect the audio cable from the sound card to the CD-ROM or DVD Writeable drive (DVD audio is transmitted through the data cable, not the audio cable).

If the DVD Writeable drive is to be the only CD-ROM device in your system:

- *If replacing a CD-ROM that had an audio cable connection:* connect the DVD Writeable drive to the audio cable that the CD-ROM was connected. The Audio cable connects to the analog audio connector at the left rear of the DVD Writeable drive (see Cable Location photo on page 3 for location).
- *If you do not have an audio cable presently in your system:* connect the DVD Writeable drive using the audio cable that was included with this kit. Connect one end to your sound card and the other end to the analog audio connector at the left rear of the drive (see Cable Location photo on page 3 for location). Refer to the instructions which came with your sound card for details on any sound-driver software required.

COMPLETING INSTALLATION

After you have connected all the necessary cables, push the DVD Writeable drive completely into the computer's drive slot. Mount the drive per your computer's instructions using the screws included in your kit. If you are using other screws, assure that the screw length does not exceed 3±0.5mm (measured from outside surface of side or bottom of drive to tip of screw). Replace the computer cover and all outer screws.

ATAPI CD/DVD Software Driver:

Toshiba's optical drives do not require any unique device drivers for Windows 98/ 2000/ME/XP/NT. After installing your drive and re-booting, your system should recognize your drive. Windows 98/2000/ME/XP/NT operating systems support all Toshiba optical drives natively.

Nero6 OEM Suite 3Software:

*Before installing Nero6 software it is recommended you visit Nero's website to check for any software updates (**http://www.nero.com**).*

To install software insert the installation CD into your newly installed drive. If "*Autorun*" is enabled on your system, the Installation window will appear automatically. If it does not appear, go to Windows Start menu, select *"Run"* and type `d:\setup.exe` (substitute the appropriate letter of your new drive for `d:`). From the Installation window select *Nero6 OEM Suite 3* and follow the installation instructions that appear on your screen. For additional information on this software, please refer to the documentation found on the Nero6 Ultra Edition CD.

Below is a list of software that can be found on the Nero6 OEM Suite 3 CD:

Nero Burning Rom - This easy to use software enables you to create your own CDs and DVDs.
Nero Backup - Easy to use data backup program.
InCD 4 - Easy to use Packet writing tool.
Nero Media Player - Easy to use software for CD Audio, Streaming Audio and Streaming Video.
Nero ShowTime - a software DVD player for the most vibrant picture viewing of DVD movies and your own projects, along with MPEG-4 (Nero Digital) compatibility
NeroVision Express 2 - a software package that leads you comfortably through the whole process of making Video CDs, Super VideoCDs or high-value DVDs.

MEDIA

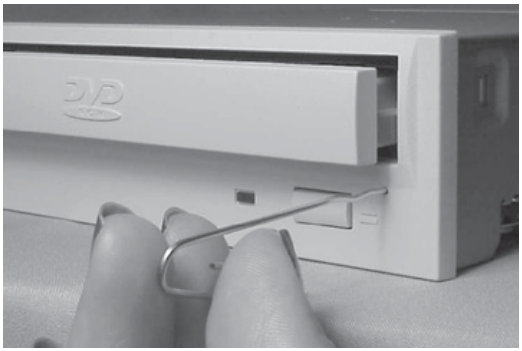
After installing Nero6 OEM Suite 3 software your system is ready to use.
Some important things to remember when using your DVD Writeable drive:

- Do not insert more than one CD or DVD disc into the drive at a time.
- Do not insert anything other than a CD or DVD disc into drive.
- Use media that is the correct size and shape.
- Use media that meets write/read requirements listed in the Specifications (see page 8).

EMERGENCY EJECT

CAUTION!

The following procedure is intended only as a last resort when pressing the Eject button fails to open the tray.
Do not use Emergency Eject Procedure while the drive is in operation.



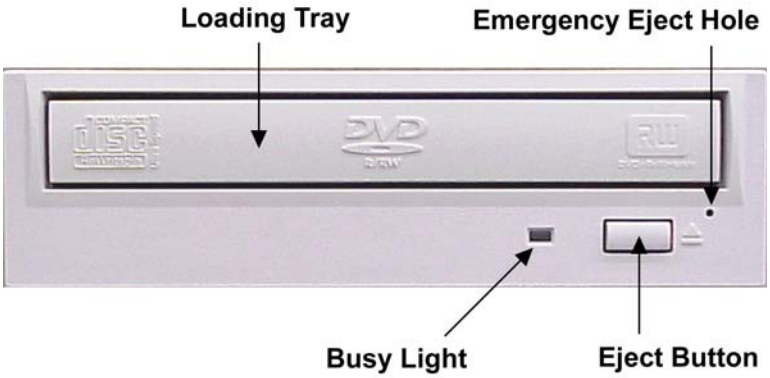
Inserting Bar to Eject Tray

1. Power down system.
2. Insert a solid bar (i.e. large paper clip*) into Emergency Eject hole and push in as shown in the picture below.
3. Tray will open/eject.
4. Power up system.

* *Use a bar that is less than 1.5mm in diameter. Do not insert more than 50mm in depth as this may damage the drive.*

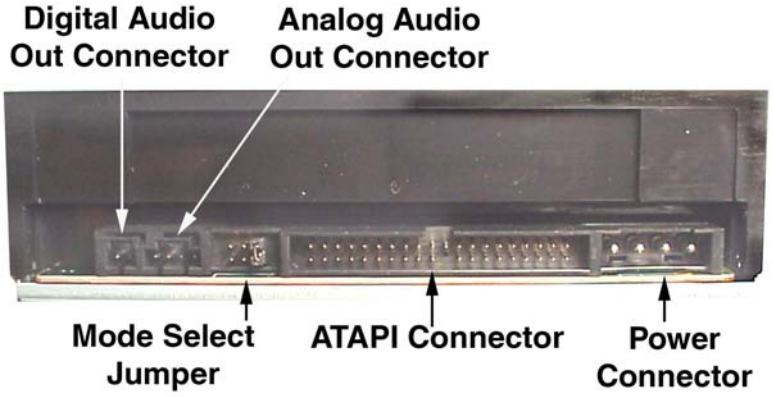
DVD WRITEABLE DRIVE FRONT PANEL

The photo below illustrates the following features of the SD-R5272 DVD Writeable drive's front panel:



DVD WRITEABLE DRIVE BACK PANEL

The photo below illustrates the following features of the SD-R5272 DVD Writeable drive's back panel:



TECHNICAL SUPPORT

Technical support can be obtained by calling 503/615-4364 or by sending an email to: toshibatech@teleplan.com or visiting our website at:

http://www.sdd.toshiba.com

SPECIFICATIONS			
DATA CAPACITY	DVD-ROM, DVD-RAM CD-ROM	2,048 Byte/Block 2,048 Byte/Block (mode 1) 2,336 Byte/Block (mode 2)	
ROTATIONAL SPEED	DVD (single) DVD (dual) DVD-R, DVD+R (read) DVD-RW, DVD+RW (read) DVD-RAM (V2.1) DVD-R, DVD+R (write) DVD-RW, DVD+RW (write) CD-ROM, CD-R: CD-DA Transfer: CD-DA, Video-CD: CD-RW (read) CD-R (Write): CD-RW (write): High Speed CD-RW (write): Ultra Speed CD-RW (write):	7,580rpm (5 - 12X CAV) 5,053rpm (3.3 - 8X CAV) 5,053 - 5,560rpm (4 - 8X PCAV) 3,790 - 5,560rpm (4 - 6X PCAV) 1,400 - 3,300rpm (2X ZCLV) 4,100 - 6,800rpm (4/5/8X ZCLV) 2,200 - 5,560rpm (4X CLV) 8,561rpm (17.2 - 40X CAV) 5,100rpm (10.3 - 24X CAV) 1,200 - 2,000rpm (4 - 6X PCAV) 5,100rpm (10.3 - 24X CAV) 5,130 - 6,800rpm (12/16/20/24/32X ZCLV) 850 - 1,980 rpm (4X CLV) 2,125 - 4,950 (10X CLV) 3,400 - 5,940 (12/16X ZCLV)	
SUSTAINED DATA TRANSFER RATE	DVD: DVD-R, DVD+R: DVD-RW, DVD+RW: DVD-RAM: CD:	6,780-16,224KB/s (single) 4,462-10,816KB/s (dual) 5,408 - 10,816KB/s 5,408 - 8,112KB/s 2,704KB/s 2,588-6,000KB/s (mode 1) 2,950-6,843KB/s (mode 2)	
ACCESS TIME (Typ.)	Avg. Random Access	Avg Random Seek	Avg. Full Stroke
DVD	130ms	120ms	210ms
CD	110ms	105ms	180ms
DVD-RAM	200ms	160ms	400ms
DATA BUFFER	2MB		
POWER SUPPLY	+5v, +12v		
MTBF	100,000 hours		
DIMENSIONS (Wx H x D)	5.75" x 1.63" x 7.46" (146mm x 41.5mm x 189.5mm)		
WEIGHT	2.2lbs (1.0kg)		
MOUNTING ORIENTATION	±10° vertical / ±20° horizontal		
APPLICABLE WRITE DISC	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video-CD), Multi-session CD (Photo-CD, CD-Extra, Portfolio), DVD-R (ver 2.0), DVD-RW (Ver 1.1), DVD+R, DVD+RW		
APPLICABLE READ DISC	DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R (Ver 2.01), DVD-RW (Ver 1.1), DVD+R, DVD+RW, DVD-RAM (Ver 2.1), CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, CD-I, CD-I Bridge (Photo-CD, Video-CD), Multi-session CD (Photo-CD, CD-Extra, CD-R, CD-RW, Portfolio), CD-R, CD-RW		

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